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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,324	08/10/2001	Hidekazu Kobayashi	110371	4772
25944	7590	11/04/2003	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			ZIMMERMAN, GLENN	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 11/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/925,324	KOBAYASHI, HIDEKAZU	
	Examiner	Art Unit	
	Glenn Zimmerman	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-11 and 13-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-11 and 13-18 is/are allowed.
- 6) ☒ Claim(s) 6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 22 August 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Amendment, filed on August 22, 2003, has been entered and acknowledged by the examiner.

Allowable Subject Matter

The indicated allowability of claim 6 and 7 is withdrawn in view of the newly discovered reference(s) to Hirano et al. U.S. Patent 6,307,324, Okuyama et al. U.S. Patent 6,531,815 and Xu et al. U.S. Patent 6,140,764. Rejections based on the newly cited reference(s) follow.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the second terminal formed over the first electrode of claim 8 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on August 22, 2003 have been approved.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Hirano et al.
U.S. Patent 6,307,324.

Regarding claim 6, Hirano et al. disclose an organic EL device (**Fig. 4 ref. 52-54 organic compound layers**), comprising:

At least a first electrode layer (**MgAg cathode Fig. 4 ref. 55**), a light-emitting layer (**light emitting layer ref. 53**), and a second electrode layer formed (**ITO anode ref. 51 layered portion**), in that order, above a substrate (**insulator substrate ref. 31**);
and

A first terminal (**anode electrode of MIM diode ref. 23**) that is connected to the first electrode layer and a second terminal (**electrode ref. 41**) connected to the second electrode layer, which are formed above a same surface of the substrate as that above which the first electrode layer is formed (**Fig. 4 both formed above same surface**);

Wherein the second terminal and the second electrode layer are electrically connected to each other by a conductive material (**ITO ref. 51 portion in contact hole**

58) which penetrates (**contact hole ref. 58**) at least one intervening layer (**insulator film ref. 56**) between the second terminal and the second electrode layer.

Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Okuyama et al. U.S. Patent 6,531,815.

Regarding claim 6, Okuyama et al. disclose an organic EL device (**organic EL element Fig. 5A ref. 20**), comprising:

At least a first electrode layer (**anode ref. 6**), a light-emitting layer (**emissive layer ref. 23**), and a second electrode layer formed (**cathode ref. 25**), in that order, above a substrate (**transparent substrate ref. 10**); and

A first terminal (**active layer ref. 16**) that is connected to the first electrode layer and a second terminal (**second lines Fig. 3B ref. L2; terminal ref. T2-b**) connected to the second electrode layer, which are formed above a same surface of the substrate as that above which the first electrode layer is formed (**Fig. 3B and 5B**);

Wherein the second terminal and the second electrode layer are electrically connected to each other by a conductive material (**contact intermediate layer ref. CN1a or Fig. 6B ref. 80**) which penetrates at least one intervening layer (**planarizing films Fig. 3B 6B ref. PLN1 and/or PLN2**) between the second terminal and the second electrode layer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano et al. U.S. Patent 6,307,324 in view of Xu et al. 6,140,764.

Regarding claim 7, Hirano et al. teaches an organic EL device (**organic compound layers Fig. 4 ref. 52-54**), the organic EL device further comprising: at least a first electrode layer (**MgAg cathode ref. 55**); a light-emitting layer (**light emitting layer ref. 53**); and a second electrode layer (**ITO anode layered portion ref. 51**) formed in that order, above a substrate (**insulator substrate ref. 31**); a first terminal (**anode electrode of MIM diode ref. 23**) connected to the first electrode layer and a second terminal (**electrode ref. 41**) connected to the second electrode layer, which are formed above a same surface of the substrate as that above which the first electrode layer is formed (**Fig. 4 both formed above same surface**); wherein the second terminal and the second electrode layer are electrically connected to each other by a conductive material (**ITO ref. 51 portion in contact hole ref. 58**) which penetrates (**contact hole ref. 58**) at least one intervening layer (**insulator film ref. 56**) between the second terminal and the second electrode layers, but fails to teach an electronic apparatus. Xu et al. in the analogous art teaches an electronic apparatus used with an organic EL device (**col. 1 lines 29-31**). Additionally, Xu et al. teaches incorporation of such an electronic apparatus to improve the usefulness of OEDs because OED are capable of generating sufficient light for use in displays under a variety of ambient light conditions and further OEDs can be fabricated relatively cheaply and in a variety of

sizes from very small (less than a tenth millimeter in diameter) to relatively large (greater than an inch) so that OED arrays can be fabricated in a variety of sizes and also OEDs have the added advantage that their emissive operation provides a very wide viewing angle (**col. 1 lines 26-39**).

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use an electronic apparatus in Organic EL device of Hirano et al. since such a modification would the usefulness of OEDs because OED are capable of generating sufficient light for use in displays under a variety of ambient light conditions and further OEDs can be fabricated relatively cheaply and in a variety of sizes from very small (less than a tenth millimeter in diameter) to relatively large (greater than an inch) so that OED arrays can be fabricated in a variety of sizes and also OEDs have the added advantage that their emissive operation provides a very wide viewing angle as taught by Xu et al.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okuyama et al. U.S. Patent 6,531,815 in view of Xu et al. 6,140,764.

Regarding claim 7, Okuyama et al. teaches an organic EL device (**organic EL element Fig. 5A ref. 20**), the organic EL device further comprising: at least a first electrode layer (**anode ref. 6**); a light-emitting layer (**emissive layer ref. 23**); and a second electrode layer (**cathode ref. 25**) formed in that order, above a substrate (**transparent substrate ref. 10**); a first terminal (**active layer ref. 16**) connected to the first electrode layer and a second terminal (**second lines Fig. 3B ref. L2; terminal ref. T2-b**) connected to the second electrode layer, which are formed above a same surface

of the substrate as that above which the first electrode layer is formed (**Fig. 3B and 5B**); wherein the second terminal and the second electrode layer are electrically connected to each other by a conductive material (**contact intermediate layer CN1a or Fig. 6B ref. 80**) which penetrates at least one intervening layer (**planarizing films Fib. 3B, 6B ref. PLN1 and/or PLN2**) between the second terminal and the second electrode layers, but fails to teach an electronic apparatus. Xu et al. in the analogous art teaches an electronic apparatus used with an organic EL device (**col. 1 lines 29-31**). Additionally, Xu et al. teaches incorporation of such an electronic apparatus to improve the usefulness of OEDs because OED are capable of generating sufficient light for use in displays under a variety of ambient light conditions and further OEDs can be fabricated relatively cheaply and in a variety of sizes from very small (less than a tenth millimeter in diameter) to relatively large (greater than an inch) so that OED arrays can be fabricated in a variety of sizes and also OEDs have the added advantage that their emissive operation provides a very wide viewing angle (**col. 1 lines 26-39**).

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use an electronic apparatus in Organic EL device of Okuyama et al. since such a modification would the usefulness of OEDs because OED are capable of generating sufficient light for use in displays under a variety of ambient light conditions and further OEDs can be fabricated relatively cheaply and in a variety of sizes from very small (less than a tenth millimeter in diameter) to relatively large (greater than an inch) so that OED arrays can be fabricated in a variety

of sizes and also OEDs have the added advantage that their emissive operation provides a very wide viewing angle as taught by Xu et al.

Allowable Subject Matter

Claims 8-11 and 13-18 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 8, the following is an examiner's statement of reasons for allowance: The prior art of record neither shows nor suggests an organic EL device including the combination of all the limitations as set forth in claim 8, and specifically a second terminal formed over the first electrode, at least a part of which faces the second electrode via the through hole, and the through hole is formed in the light-emitting layer could not be found elsewhere in prior art.

Regarding claims 9-11 and 13-18, claims 9-11 and 13-18 are allowed for the reasons given in claim 8, because of their dependency status on claim 8.

Response to Arguments

Applicant's arguments with respect to claim 6 and 7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dickson U.S. Patent 3,330,982 discloses an Hermetically Encased Electroluminescent Display Device. Yudasaka U.S. Patent 6,541,918 discloses an Active-Matrix Emitting Apparatus and Fabrication Method Therefor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn Zimmerman whose telephone number is (703) 308-8991. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is n/a.


Glenn D. Zimmerman

Joseph W. Hains
